




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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/046,638	01/14/2002	Cesare Clementi	S1022/8827	3475
7590	05/04/2004		EXAMINER	
James H. Morris Wolf, Greenfield & Sacks, P.C. 600 Atlantic Avenue Boston, MA 02210			HA, NATHAN W	
			ART UNIT	PAPER NUMBER
			2814	

DATE MAILED: 05/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Applicati n No. 10/046,638	Applicant(s) CLEMENTI ET AL.	
	Examin r Nathan W. Ha	Art Unit 2814	

-- The MAILING DATE of this communicati n appears on the c ver sheet with the corresp ndence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/02</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1 and 3-8 are rejected under 35 U.S.C. 102(A) as being anticipated by Cho et al. (US 5,514,889, hereinafter, Cho.)

In regard to claims 1 and 7, in fig. 3, Cho discloses an integrated circuit on a monocrystalline substrate, the integrated circuit comprising:

a matrix of non-volatile memory cells, each non-volatile floating memory cell having a floating gate and a control gate, both gates being electroconductive, and an intermediate dielectric multilayer disposed between the floating gate and the control gate for electrically insulating the floating gate and the control gate from one another, the intermediate dielectric multilayer including at least a first deposited silicon oxide layer; and

at least one first and one second transistor type formed in zones of the substrate peripheral to the matrix of non-volatile memory cells and having multilayer gate dielectrics of a first and second thickness, respectively, wherein the multilayer gate dielectric of both the first type and the second type of peripheral transistors include a

second silicon oxide. See col. 5, lines 26-55 since the elements were not numbered clearly.

Regarding the processing limitations recited in (claims 1, 5) (deposited, thermal treatment, etc.), these would not carry patentable weight in this claim drawn to structure. In re Thorpe, 227 USPQ 964 (Fed. Cir. 1985).

In regard to claims 3-5, wherein said transistors of the first and the second type are high voltage and low voltage transistors, respectively, and said second thickness of the multilayer gate dielectric of the second transistor type is less than said first thickness of the multilayer gate dielectric of the first transistor type. See col. 6, lines 15-23 and fig. 3.

In regard to claim 6, wherein the thickness of said first deposited silicon oxide layer is between 50A and 250A, 180, for example, and said first thickness and said second thickness of the multilayer gate dielectrics of the at least one first and one second transistor types are between 70A and 350A, 200 Angstroms, for example. See col. 9, lines 13 and line 37.

In regard to claim 8, Cho further discloses that the cell and the transistors are MOS transistor. See col. 5, line 66, for example.

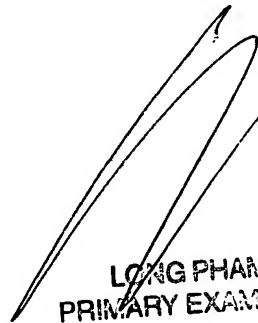
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan W. Ha whose telephone number is (571) 272-1707. The examiner can normally be reached on M-TH 8:00-7:00(EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wael Fahmy can be reached on (571) 272-1705. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nathan Ha
April 26, 2004



LONG PHAM
PRIMARY EXAMINER